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### **REMARKS**

Claims 1-27 are now pending in the application. Claims 13, 14, 16, 17 and 22 have been amended herein. Claims 24-27 have been newly added. Favorable reconsideration of the application, as amended, is respectfully requested.

#### **I. ALLOWABLE SUBJECT MATTER**

Applicant notes with appreciation the indicated allowability of claims 12, 15, 16 and 21 subject to being amended to independent form and to overcome any indefiniteness rejections. These claims will be in condition for allowance upon being amended to independent form.

#### **II. REJECTION OF CLAIM 16 UNDER 35 USC §112, 2<sup>nd</sup> ¶**

Claim 16 stands rejected under 35 USC §112, second paragraph, as being indefinite. Specifically, the Examiner indicates that there is no antecedent basis for "the display".

In response, applicant has amended claim 16 to depend more properly from claim 15. As a result, proper antecedent basis for "the display" is now found in claim 15. Withdrawal of the rejection is respectfully requested.

#### **III. REJECTION OF CLAIMS 1-11, 13-14, 17-20 AND 22-23 UNDER 35 USC §102(e)**

Claims 1-11, 13-14, 17-20 and 22-23 stand rejected under 35 USC §102(e) based on *Ebert et al.* (US 6,615,116 B2). This rejection is respectfully traversed for at least the following reasons.

Regarding claim 1, the Examiner contends that *Ebert et al.* teaches each and every feature of an umbilical cable as recited in the claim. However, applicants respectfully submits that the Examiner is overlooking a fundamental distinction between the umbilical cable of claim 1 and the umbilical element in *Ebert et al.*

More specifically, *Ebert et al.* describes an umbilical element which serves to receive communications from an aircraft according to a first predetermined format for

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controlling a smart weapon, and translate the communications into a second predetermined format which may be forwarded to the smart weapon. As is described in *Ebert et al.*, the aircraft has the capability of controlling smart weapons of one type according to one format but does not necessarily communicate according to the format of another type of smart weapon. The umbilical element of *Ebert et al.* functions to translate commands in accordance with one standard (e.g., Mil-Std-1760) to a smart weapon in accordance with another standard (e.g., MK 82). (See, e.g., Col. 7, Ins. 13-31). As a result, the umbilical element of *Ebert et al.* functions merely to translate communications between one smart weapon standard to another smart weapon standard. An aircraft equipped to handle one type of smart weapon standard can utilize the umbilical element of *Ebert et al.* to control a smart weapon which operates in accordance with a different standard.

The umbilical cable of claim 1, on the other hand, is directed to enabling aircraft which are not equipped to handle any type of smart weapon standard to nevertheless be able to utilize smart weapons. As is pointed out in the present application, the types of aircraft that may benefit the most from the umbilical cable of claim 1 are the types of aircraft which do not have standardized smart weapon interfaces. Aircraft which simply have conventional discrete controls (e.g., nose arm, tail arm, etc.) associated with the use of "dumb" weapons can nevertheless utilize smart weapons by virtue of the invention. The umbilical cable of claim 1 takes non-standardized signals from such aircraft, converts the signals and combines the signals with various control commands programmed into the umbilical cable, and allows such an aircraft without a standardized smart weapon interface to nevertheless utilize smart weapon technology.

Referring to claim 1 specifically, the claim recites how the interface circuit is configured to receive a *non-standard* combination of signals from the aircraft. As noted above, *Ebert et al.* only teaches an umbilical element designed to receive standardized smart weapon signals. *Ebert et al.* does not teach or suggest an umbilical element designed to receive non-standard signals as recited in claim 1. Moreover, *Ebert et al.* does not teach or suggest the advantages associated with such a cable as recited in claim 1 and as discussed above.

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Accordingly, withdrawal of the rejection of claim 1 and the claims dependent therefrom is respectfully requested.

Regarding claim 10, in particular, the claim recites that the pilot-operated digital processor is portable. The Examiner refers to the computer 18 in the aircraft launch platform 14 as representing the pilot-operated digital processor. Assuming simply for sake of argument that that is the case, applicant respectfully submits that the computer 18 within the aircraft launch platform is not *portable* as recited in claim 10.

Perhaps the Examiner is of the opinion that since the aircraft can travel from place to place the launch platform is portable. However, the launch platform is part of the aircraft, and one can hardly say that an aircraft is "portable". That is akin to saying a car or a bus is "portable". The American Heritage Dictionary, Second College Edition © 1991, defines "portable" as 1. Capable of being carried; 2. Easily carried or moved. An aircraft, of which the launch platform is part, is certainly not capable of being easily carried or moved. Therefore, the computer 18 within the aircraft in *Ebert et al.* is not portable as recited in claim 10.

Regarding claim 13, the Examiner contends that the aircraft 10 constitutes a ground loading device when on the ground. Applicant questions whether such a reading is reasonable in the context of the present application where it is clear that a ground loading device is something separate and apart from the aircraft itself. (See, e.g., Fig. 4, element 86). Nevertheless, applicant has amended claim 13 to clarify that the ground loading device is separate from the aircraft (i.e., not a part of the aircraft). *Ebert et al.* does not teach or suggest any type of ground loading device which is separate from the aircraft as recited in amended claim 13.

Amended claim 17 is similar to claim 13 in that it relates to the use of a ground loading device *separate from the aircraft* for transmitting the operation data to the umbilical cable. As is explained above in relation to claim 13, *Ebert et al.* does not teach or suggest a ground loading device which is separate from the aircraft. Withdrawal of the rejection of claim 17 and the claims dependent therefrom is respectfully requested.

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Applicant wishes to point out that method claim 22 is analogous to apparatus claim 16 in reciting the use of a display. Claim 22 has been amended herein to provide proper antecedent basis by depending from allowable claim 21. Claim 22 is believed to be similarly allowable.

**IV. NEW CLAIMS 24-27**

New claims 24-27 are submitted herein to identify further the various features of the present invention.

**V. CONCLUSION**

Accordingly, all claims 1-27 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

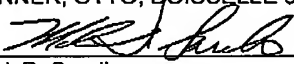
Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

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Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

  
Mark D. Saralino  
Reg. No. 34,243

DATE: November 30, 2004

The Keith Building  
1621 Euclid Avenue  
Nineteenth Floor  
Cleveland, Ohio 44115  
(216) 621-1113  
C:\GEN\RAY\T\Raytp246\raytp246.amd.wpd